Amendments to the Claims:

Claims 1-36 are pending in this application.

1. (previously presented) A method for controlling a plurality of message transfer operations between a plurality of nodes, the method comprises:

detecting a request from a first node to switch the first node to a separate communication loop, the separate communication loop containing only the first node;

switching the first node to the separate communication loop;

detecting a request from the first node to open message transfer operation between the first node and a second node; and

switching the second node to the separate communication loop when the second node is not busy.

2. (original) The method of claim 1 wherein all of the nodes are switched to form a main communication loop upon initialization.

3. (original) The method of claim 1 wherein upon initialization all of the nodes have a status of not busy, the method further comprising setting the status of the first node and the second node to busy after the second node is switched to the separate communication loop.

4. (original) The method of claim 1 further comprising facilitating message transfer operation between the fist node and second node on the separate communication loop.

5. (original) The method of claim 1 further comprising:

closing message transfer operation;

setting the status of the first node and the second node to not busy after closing message transfer operation;

switching the first node out of the separate communication loop; and

switching the second node out of the separate communication loop.

6. (original) The method of claim 5 further comprising waiting for a predetermined amount of time after at least one of setting the status of the first node to not busy and setting the status of the second node to not busy before switching the first mode and the second node out of the separate communication loop.

7. (original) The method of claim 1 further comprising:

acknowledging to the first node the request to open message transfer operation afer detecting a request from the first node to open message transfer operation;

notifying the first node that the second node is busy in response to the status of the second node being busy; and

notifying the second node of the request to open message transfer operation after switching the second node to the separate communication loop.

8. (original) The method of claim 1 further comprising:

detecting a request from a third node to open a second message transfer operation between the third node and the second node; and

switching the third node to the separate communication loop.

9. (original) The method of claim 8 further comprising:

acknowledging to the third node the request to open the second message transfer operation after detecting the request from the third node to open a second message transfer operation;

notifying the third node that the second node is busy in response to the status of the second node being busy; and

notifying the second node of the request to open the second message transfer operation after switching the third node to the separate communication loop.

10. (original) The method of claim 1 further comprising:

detecting a request from the first node to open a third message transfer operation between the first node and a fourth node; and

switching the fourth node to the separate communication loop.

11. (original) The method of claim 10 further comprising:

acknowledging to the first node the request to open the third message transfer operation after detecting the request from the first node to open the third message transfer operation;

notifying the first node that the fourth node is busy if the status of the fourth node is busy; and

notifying the fourth node of the request to open the third message transfer operation after switching the fourth node to the separate communication loop.

12. (original) The method of claim 1 wherein the network is a Fibre Channel arbitrated loop network.

13. (previously presented) A switching hub for use in a network having a plurality of nodes each connected to the switching hub by a sending channel and a receiving channel, each node sending at least one connection message, the switching hub comprising:

an interconnect switch for connecting the sending channel and the receiving channel of each node into at least one separate communication loop;

a plurality of port interfaces, each port interface linking the respective receiving channel and the respective sending channel of each node to the interconnect switch, each port interface detecting messages on the receiving channel; and

a controller in communication with the plurality of port interfaces and the interconnect switch, the controller operative to form a plurality of separate communication loops, each separate communication loop based on at least one

detected message, each separate communication loop consisting only of at least one requesting node and at least one node responding to the at least one requesting node.

14. (original) The switching hub of claim 13 wherein the plurality of nodes communicate with each other using a protocol having a plurality of messages and defining message types of at least Arbitration having at least a source addresses, Open having at least a source address and a destination address, and Close.

15. (original) The switching hub of claim 13 wherein the plurality of nodes are switched to form a main communication loop upon initialization.

16. (original) The switching hub of claim 13 wherein the message types include Busy and Idle.

17. (original) The switching hub of claim 13 wherein the controller is further responsive to a predetermined time-out period before releasing each node from the at least one separate communication loop.

18. (previously presented) The switching hub of claim 13 wherein the controller forms a separate communication loop connecting only a first node and a second node, the first node requesting access to the second node.

19. (original) The switching hub of claim 18 wherein the controller forms the separate communication loop connecting a third node requested by the first node.

20. (original) The switching hub of claim 18 wherein the controller forms the separate communication loop connecting a fourth node requesting access to the second node.

21. (original) The switching hub of 13 wherein each port interface comprises:

a receiver connected to the sending channel of one node of the plurality of nodes;

a decoder linking the receiver to the interconnect switch, the decoder in communication with the controller, the decoder detecting messages sent to the port interface;

a transmitter connected to the receiving channel of one node of the plurality of nodes; and

a multiplexer linking the transmitter to the interconnect switch, the multiplexer in communication with the controller.

22. (original) The switching hub of 13 wherein the controller comprises:

a busy port store for identifying the status of the plurality of nodes;

a valid arbitration loop address store for storing messages; and

a processor in communication with the encoder, the multiplexer of each port interface, the busy port store, and the valid arbitration loop store, the processor interpreting connection messages.

23. (original) The switching hub of 13 wherein at least one node utilizes a Fibre Channel protocol.

24. (previously presented) A hub interconnecting a plurality of nodes, each node having a channel over which data is transmitted and received, the hub comprising:

a port interface in communication with each node through the channel, each port sending data over a send data path and receiving data over a receive data path;

an interconnect device in communication with each port interface, the interconnect device operative to forward data between any send data path and any receive data path; and

a controller in communication with each port interface and the interconnect device, the controller operative to signal the interconnect device to form a plurality of separate communication loops, each separate communication loop including only requesting nodes and nodes responding to the requesting nodes.

25. (original) A hub as in claim 24 wherein the controller forms each separate communication loop based on a message received from at least one port included in the separate communication loop.

26. (original) A hub as in claim 24 wherein each port interface generates the message based on signals received from at least one port in a Fibre Channel protocol.

27. (original) A hub as in claim 24 wherein the controller establishes every port in one loop upon initialization.

28. (previously presented) A method of interconnecting a plurality of nodes comprising:

forming a main communication loop interconnecting the plurality of nodes;

receiving a request from a first node to access a second node;

determining if the second node is not busy; and

if the second node is not busy, forming a separate communication loop comprising only the first node and the second node, the separate communication loop formed to leave the plurality of nodes not including the first node and the second node interconnected by the main communication loop.

29. (original) A method of interconnecting a plurality of nodes as in claim 28 further comprising:

receiving a request from the first node to access a third node;

determining that the third node is not busy; and

if the third node is not busy, joining the third node in the separate loop comprising the first node and the second node.

30. (original) A method of interconnecting a plurality of nodes as in claim 28 wherein the received request conforms to a Fibre Channel protocol.

31. (previously presented) A method of interconnecting a plurality of nodes as in claim 28 further comprising interconnecting each node in the main communication loop upon initialization.

32. (original) A method of interconnecting a plurality of nodes as in claim 28 wherein the second node is detached from a second loop before forming the separate communication loop.

33. (previously presented) A method for controlling a plurality of message transfer operations between a plurality of nodes, the method comprises:

detecting a request from a first node to switch the first node to a separate communication loop;

switching the first node to the separate communication loop;

detecting a request from the first node to open message transfer operation between the first node and a second node;

switching the second node to the separate communication loop when the second node is not busy;

detecting a request from a third node to open a second message transfer operation between the third node and the second node;

switching the third node to the separate communication loop;

acknowledging to the third node the request to open the second message transfer operation after detecting the request from the third node to open a second message transfer operation;

notifying the third node that the second node is busy in response to the status of the second node being busy; and

notifying the second node of the request to open the second message transfer operation after switching the third node to the separate communication loop.

34. (previously presented) A method for controlling a plurality of message transfer operations between a plurality of nodes, the method comprises:

detecting a request from a first node to switch the first node to a separate communication loop;

switching the first node to the separate communication loop;

detecting a request from the first node to open message transfer operation between the first node and a second node;

switching the second node to the separate communication loop when the second node is not busy;

detecting a request from the first node to open a third message transfer operation between the first node and a fourth node;

switching the fourth node to the separate communication loop;

acknowledging to the first node the request to open the third message transfer operation after detecting the request from the first node to open the third message transfer operation;

notifying the first node that the fourth node is busy if the status of the fourth node is busy; and

notifying the fourth node of the request to open the third message transfer operation after switching the fourth node to the separate communication loop.

35. (previously presented) A switching hub for use in a network having a plurality of nodes each connected to the switching hub by a sending channel

and a receiving channel, each node sending at least one connection message, the switching hub comprising:

an interconnect switch for connecting the sending channel and the receiving channel of each node into at least one separate communication loop;

a plurality of port interfaces, each port interface linking the respective receiving channel and the respective sending channel of each node to the interconnect switch, each port interface detecting messages on the receiving channel;

a controller in communication with the plurality of port interfaces and the interconnect switch, the controller controlling the interconnect switch to form at least one separate communication loop based on at least one detected message;

a receiver connected to the sending channel of one node of the plurality of nodes;

a decoder linking the receiver to the interconnect switch, the decoder in communication with the controller, the decoder detecting messages sent to the port interface;

a transmitter connected to the receiving channel of one node of the plurality of nodes; and

a multiplexer linking the transmitter to the interconnect switch, the multiplexer in communication with the controller.

36. (previously presented) A switching hub for use in a network having a plurality of nodes each connected to the switching hub by a sending channel and a receiving channel, each node sending at least one connection message, the switching hub comprising:

an interconnect switch for connecting the sending channel and the receiving channel of each node into at least one separate communication loop;

a plurality of port interfaces, each port interface linking the respective receiving channel and the respective sending channel of each node to the interconnect switch, each port interface detecting messages on the receiving channel; and

a controller in communication with the plurality of port interfaces and the interconnect switch, the controller controlling the interconnect switch to form at least one separate communication loop based on at least one detected message;

a busy port store for identifying the status of the plurality of nodes;

a valid arbitration loop address store for storing messages; and

a processor in communication with the encoder, the multiplexer of each port interface, the busy port store, and the valid arbitration loop store, the processor interpreting connection messages.